

Serial No. 10/511,401
Customer No. 24498

PU020117

REMARKS

Reconsideration of this application is respectfully requested. Claims 1-24 are in this application and are presented for the Examiner's consideration in view of the following comments.

Claims 1-24 have been rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential elements. In particular, the Examiner requests that Applicants add the additional requirements of a delay unit, and a second equalizer including the feedforward filter and summing node to every claim. Applicants respectfully disagree.

First, 35 U.S.C. §112, second paragraph, is clear:

[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

(Emphasis added.)

Respectfully, it is improper for the Examiner to request Applicants to add elements that the Examiner regards as part of the invention.

Second, Applicants' independent claims pass muster under 35 U.S.C. §112, second paragraph. Applicants' specification clearly states that

[r]e-encoded trellis decoder outputs, rather than the equalizer output, are used as the input signal to the feedback filter of the Decision Feedback Equalizer (DFE).

Applicants' specification, p. 5, lns. 4-6; emphasis added.

This is clearly the subject matter of Applicants' independent claims 1, 10 and 18. As such, while Applicants' independent claims may be broad, they clearly encompass the subject matter that Applicants' regard as the invention.

Third, the elements of Applicants' independent claims are not a mere aggregation of elements, they cooperate together and are fully supported by the specification and drawings. For example, consider Applicants' claim 1. The "first means for identifying" identifies and re-encodes trellis data receive from the "first means for adaptively filtering"; the "feedback filter" is responsive to the re-encoded data provided by the "first means for identifying" and the "trellis decoder" is responsive to an output signal generated by the feedback filter.

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If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefor.

Respectfully submitted
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responsive to an output signal generated by the feedback filter. Finally, this claim is clearly supported by FIG. 3 of Applicants' specification. Similar comments apply to Applicants' remaining independent claims 10 and 18.

In addition, claims 6-9 and 20-22 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In particular, with respect to claims 6 and 20, the Examiner requests the phrase "delay unit ... synchronizing data" be replaced with the phrase "delay unit staging data". Applicants respectfully decline.

Applicants' specification clearly states that:

[t]he present architecture performs the feedback operation by providing an additional trellis decoder and equalizer along with an additional delay unit to provide data synchronization.

Applicants' specification, p. 5, lns. 9-11; emphasis added.

Thus, Applicants' specification clearly provides support for a delay unit as claimed.

In view of the above, Applicants respectfully submit that claims 1-24 pass muster under 35 U.S.C. §112, second paragraph.

As it is believed that all of the objections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone Applicants' attorney in order to overcome any additional objections that the Examiner might have.